

---

**Bobby Ray Junker, Ph.D.**



**Department Head for Command, Control,  
Communications & Computers; Intelligence,  
Surveillance & Reconnaissance  
Office of Naval Research**



Dr. Bobby Junker is the Department Head for the Command, Control, Communications & Computers; Intelligence, Surveillance & Reconnaissance (C4ISR) Department at the Office of Naval Research (ONR). Three divisions report to him: Mathematics, Computers, and Information Research; Electronics, Sensors, and Networks Research; and C4ISR Applied Technology. His primary responsibilities are to identify and develop innovative science and technology to enhance the warfighter's ability to understand and control the battle-space and to ensure that the technology is transitioned to the Naval Forces. In this role, he has developed a planning process that has closely coupled the Science & Technology program with the Systems Command, Chief of Naval Operations staff, and Fleet to enhance technology transition. He has initiated major programs in Advanced Multi-function Radio Frequency (RF) Concepts to integrate communications, radar, and electronic warfare (EW) into common, multi-function, multi-beam apertures; develop technology to automate the integration of large volumes of disparate sensor and intelligence data; and initiate fully autonomous extremely large sensor networks with the ability to understand the battlespace they are sensing and to self-task (a prerequisite to effective counter-insurgency operations).

Dr. Junker entered the Senior Executive Service in April 1984 and has had a total of 30 years in the Civilian Service.

In December 1994, he was selected to the position as Department Head of the Information, Electronics, and Surveillance Department when ONR, the Office of Naval Technology, and Office of Advanced Technology reorganized. In 2005, the directorate's name was changed to C4ISR to better reflect the current work.

In August 1986 Dr. Junker was appointed Acting Head, Mathematical and Physical Sciences Directorate, and was subsequently selected as the Head in March 1987. In that position, he was instrumental in the initiation of innovative programs in neural networks,

fast algorithms for solving propositional logic problems applicable to C2, new electronic materials and growth techniques, and application of nonlinear dynamics to numerous Navy problems.

In September 1983 Dr. Junker was appointed Acting Division Director for the Physics Division at ONR and was subsequently selected as Division Director in April 1984. He initiated significant programmatic interactions with the Innovative Science and Technology Directorate of the Ballistic Missile Defense Organization in the area of high power switches.

From January 1977 to September 1983, Dr. Junker was the Program Manager for the Atomic and Molecular Physics Program of the Physics Division at ONR. He initiated major programs in the laser cooling and trapping of atoms, stored ion spectroscopy, and atomic clocks; energy release in energetic materials; and interferometric astrometry.

Prior to joining the Federal Civilian Service, Dr. Junker was a faculty member in the Physics Department at the University of Georgia.

Dr. Junker received a bachelor's of science degree in 1965 from the University of Southwestern Louisiana, an master's of arts in August 1967, and doctorate in January 1969 from the University of Texas at Austin. His field of research is theoretical atomic and molecular physics.

Dr. Junker received the Presidential Distinguished Rank Award in 2003, Navy Superior Service Award in 1985, and the rank of Meritorious Executive in 1989 and 1999. He also received the EEO (Supervisory) Category OCNR Command and OCNR Headquarters awards in 1991 for his work in developing programs at Historically Black Colleges and Universities and his efforts in hiring and promoting qualified women and minorities. Dr. Junker is a life member of the American Physical Society, Sigma Xi, and SEA.